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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,289	09/25/2003	Theodorus Henricus Gerardus Maria Peters	903-86	1500
23869	7590	11/02/2005		
HOFFMANN & BARON, LLP 6900 JERICHO TURNPIKE SYOSSET, NY 11791			EXAMINER MRUK, GEOFFREY S	
			ART UNIT 2853	PAPER NUMBER

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/671,289

Applicant(s)

PETERS ET AL.

Examiner

Geoffrey Mruk

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kovacs et al. (US 6,139,611) in view of Banczak et al. (US 4,021,252).

With respect to claim 1, the primary reference of Kovacs discloses a method for printing a substrate with ink drops according to the "drop-on-demand" principle (Column 1, lines 49-67; Column 2, lines 1-10), which substrate is provided with a polymeric ink-receiving layer (Column 4, lines 30-38), using an ink jet printing device, the printhead of which is provided with a piezo element (Column 1, line 63) for generating ink drops, the method comprising the steps of supplying the substrate, generating ink drops and depositing the generated ink drops on the substrate, wherein the ink from which the ink drops are formed, has an ink composition (Column 5, lines 45-50) which comprises a dye (Column 3, lines 55-67; Column 4, lines 1-5), water (Column 5, line 47), a lower alcohol (Column 5, lines 48-49) and humectant (Column 5, line 48), wherein the lower alcohol content is 5-30% by weight (Column 5, lines 48-49).

With respect to claim 2, primary reference of Kovacs discloses a lower alcohol is selected from the group consisting of monohydric alcohols having 1-4 carbon atoms (Column 5, lines 12-27).

With respect to claim 3, primary reference of Kovacs the lower alcohol comprises isopropanol (Column 5, lines 12-27, i.e. n-propyl alcohol).

With respect to claim 4, primary reference of Kovacs discloses the humectants comprise one or more polyhydric alcohols, polyethylene glycols, or polypropylene glycols (Column 4, lines 54-67; Column 5, lines 1-11).

However, the primary reference fails to disclose the ink composition has a viscosity greater than 3 cP.

The secondary reference of Banczak discloses an ink composition where the lower alcohol percentage by weight is 9.5% and the water percentage by weight is 19% (Column 8, lines 17-37) and an ink composition that has a viscosity greater than 3cP (Column 8, lines 24-37).

At the time of the invention it would have been obvious to one of ordinary skill in the art to use the teachings of the secondary reference of Banczak for the ink composition of Kovacs. The motivation for doing so would have been to maintain a desired viscosity level (Column 8, lines 17-24).

2. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kovacs et al. (US 6,139,611) in view of Banczak et al. (US 4,021,252) as applied to claim 1 above, and further in view of Gregory et al. (US 5,755,862).

Kovacs and Banczak disclose all of the limitations of a method for printing a with ink drops according to the “drop-on-demand” principle including:

- the lower alcohol : water weight ratio is between 0.08 and 0.6 (Column 8, lines 17-37), and
- the substrate comprises a polymeric ink-receiving layer made from a swelling polymer (Column 4, lines 30-38, i.e. gelatin).

Kovacs and Banczak fail to disclose:

- the humectant : lower alcohol weight ratio is between 0.10 and 1.50.

The tertiary reference of Gregory et al. (US 5,755,862) discloses Gregory a humectant to lower alcohol weight ratio is between 0.10 and 1.50 (Table 1).

At the time of the invention it would have been obvious to one of ordinary skill in the art to use the teachings of the tertiary reference of Gregory for the ink composition of Kovacs. The motivation for doing so would have been to provide an ink that can “provide sharp, non-feathered images which have good waterfastness, light fastness and optical density, have fast fixation to the substrate and cause no clogging of the nozzle” (Column 1, lines 9-19).

### ***Response to Arguments***

Applicant's arguments filed 18 July 2005 have been fully considered but they are not persuasive. Applicant's argument that “There is no indication in Kovacs that the inkjet composition is specifically desired for the technique which is named in the application that is now being examined, as piezo-DOD (drop-on-demand)” is not

persuasive. Kovacs states "In another process, known as drop-on-demand ink jet, individual ink droplets are projected as needed onto the image-recording element to form the desired image. Common methods of controlling the projection of ink droplets in drop-on-demand printing include piezoelectric transducers and thermal bubble formation. Ink jet printers have found broad applications across markets ranging from industrial labeling to short run printing to desktop document and pictorial imaging" (Column 1, lines 49-67).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey Mruk whose telephone number is 571 272-2810. The examiner can normally be reached on 7am - 330pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GSM  
10/26/2005

GM

  
10/28/05  
**MANISH S. SHAH**  
**PRIMARY EXAMINER**